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EXAMINER	
TRUONG, LOAN	
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2114	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/803,869	GOSS ET AL.	
	Examiner	Art Unit	
	LOAN TRUONG	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the amendment filed March 26, 2007.

2. Claims 1-17 are presented for examination with claims 1-6 and 11 amended.

Response to Arguments

3. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3, 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn et al. (US 6,654,707) in further view of Schaefer (US 20010037418).

In regard to claim 1, Wynn et al. teach a computer system, comprising:

A system component driver operable in a diagnostic mode of operation configured for enabling selective execution of diagnostic functionality on a corresponding system component sensor device while concurrently permitting execution of system management to be performed via system component sensors in a system management mode of operation (*a system comprising at least two processors wherein one operate the system and the other runs the diagnostic test, col. 3 lines 40-53).*

Wynn et al. does not explicitly teach a computer system wherein a service processor coupled to the system component driver for enabling execution of system component driver commands to be performed remains operably accessible by a platform-side operating system while the system component driver is operating in the diagnostic mode of operation.

Schaefer teaches the direct processor access via an external multi-purpose interface by implementing a direct processor access via an external multi-purpose interface. The processor is coupled to the external multi-purpose interface by a bus. The external multi-purpose interface has a detection device that detects a diagnostic tool coupled to the interface. The interface is coupled directly to the processor in response to the diagnostic tool being coupled to the interface (*paragraph 0006.*

It would have been obvious to modify the circuit of Wynn et al. by adding Schaefer direct processor access via an external multi-purpose interface. A person of ordinary skill in the art at the time of applicant's invention would have been motivated to

make the modification because it would provide accessing to the processor of a computer system when the case of the computer system is fully assembled (*paragraph 0005).*

In regard to claim 2, Wynn et al. teach the computer system of claim 1 wherein the diagnostic mode of operation includes disabling the corresponding system component device with respect to system management functionality and access by non-diagnostic users (*making a device unavailable to the operating system while the operating system is running, col. 3 lines 40-53).*

In regard to claim 3, Wynn et al. teach the computer system of claim 1 wherein said diagnostic functionality includes at least one of:

issuing a message indicating that the corresponding system component sensor device is inaccessible when accessed by a non-diagnostic user while the corresponding system component sensor device is in the diagnostic mode of operation (*the OS no longer uses the device because it "thinks" that the device is unavailable, col. 8 lines 1-8)*;

issuing a message to the non-diagnostic user indicating that the corresponding system component sensor device is transitioning to the diagnostic mode of operation from the system management mode of operation (*request to eject a device, fig. 2, 210, col. 7 lines 55-67 and col. 8 lines 1-8)*; and

issuing a message to the non-diagnostic user indicating that the corresponding system component sensor device is transitioning to the system management mode of operation from the

diagnostic mode of operation (*insert or make device available to the OS, col. 8 lines 9-13).*

In regard to claim 6, Wynn et al. teach a method for facilitating diagnostic functionality in a computer system, comprising:

setting a designated sensor device of a system component to a diagnostic mode of operation (*general purpose event indicates request to eject selected device, fig. 2, 210)*;

executing system management functionality on system components served by non-designated sensor devices while the designated sensor device is in the diagnostic mode of operation (*making a device unavailable to the operating system while the operating system is running, col. 3 lines 40-53)*; and

executing diagnostic functionality on the designated sensor device while executing said system management functionality (*a system comprising at least two processors wherein one operate the system and the other runs the diagnostic test, col. 3 lines 40-53)* and while the designated sensor device is in the diagnostic mode of operation (*general purpose event indicates request to eject selected device, fig. 2, 210).*

Wynn et al. does not explicitly teach the method wherein concurrently executing said management and diagnostic functionalities includes a service processor coupled to the system component driver for enabling execution of system component driver commands to be performed remains operably accessible by a platform-side operating system while the system component driver is operating in the diagnostic mode of operation.

Schaefer teaches the direct processor access via an external multi-purpose interface by implementing a direct processor access via an external multi-purpose interface. The processor is coupled to the external multi-purpose interface by a bus. The external multi-purpose interface has a detection device that detects a diagnostic tool coupled to the interface. The interface is coupled directly to the processor in response to the diagnostic tool being coupled to the interface (*paragraph 0006.*

Refer to claim 1 for motivational statement.

In regard to claim 7, Wynn et al. teach the method of claim 6 wherein: said setting to the diagnostic mode of operation includes setting a device driver corresponding to the designated sensor device to the diagnostic mode of operation (*ACPI-aware chip set, node controller, fig. 1, 138, 192).*

In regard to claim 8, Wynn et al. teach the method of claim 6 wherein:

said setting to the diagnostic mode of operation includes simultaneously setting a plurality of sensor devices to the diagnostic mode of operation (*general-purpose event can indicate requests to eject two or more selected devices, col. 8 lines 17-21)*; and

the designated sensor device is one of said sensor devices (*selected devices, col. 8 lines 17-21).*

In regard to claim 9, Wynn et al. teach the method of claim 6 wherein executing said diagnostic functionality includes at least one of:

issuing a message indicating that the corresponding system component sensor device is inaccessible when accessed by a non-diagnostic user while the corresponding system component sensor device is in the diagnostic mode of operation (*the OS no longer uses the device because it "thinks" that the device is unavailable, col. 8 lines 1-8)*;

issuing a message to the non-diagnostic user indicating that the corresponding system component sensor device is transitioning to the diagnostic mode of operation from the system management mode of operation (*request to eject a device, fig. 2, 210, col. 7 lines 55-67 and col. 8 lines 1-8)*; and

issuing a message to the non-diagnostic user indicating that the corresponding system component sensor device is transitioning to the system management mode of operation from the diagnostic mode of operation (*insert or make device available to the OS, col. 8 lines 9-13).*

In regard to claim 10, Wynn et al. teach the method of claim 6 wherein: said setting to the diagnostic mode of operation includes disabling the designated sensor device from at least one of providing system management functionality and being accessed by non-diagnostic users (*making a device unavailable to the operating system while the operating system is running, col. 3 lines 40-53).*

In regard to claim 11, Wynn et al. teach a computer system, comprising:

at least one data processing device (*microprocessor, fig. 1, 105)*;

instructions (*BIOS program stored on memory, fig. 1, 124, col. 6 lines 35-42)* processable by said at least one data processing device (*microprocessor, fig. 1, 105)*; and

an apparatus (*information handling system, fig. 1, 100)* from which said instructions (*BIOS program stored on memory, fig. 1, 124, col. 6 lines 35-42)* are accessible by said at least one data processing device (*microprocessor, fig. 1, 105)*;

wherein said instructions are configured for enabling said at least one data processing device to facilitate:

setting a designated sensor device of a system component to a diagnostic mode of operation (*general purpose event indicates request to eject selected device, fig. 2, 210)*;

executing system management functionality on system components served by non-designated sensor devices while the designated sensor device is in the diagnostic mode of operation (*making a device unavailable to the operating system while the operating system is running, col. 3 lines 40-53)*; and

executing diagnostic functionality on the designated sensor device while executing said system management functionality (*a system comprising at least two processors wherein one operate the system and the other runs the diagnostic test, col. 3 lines 40-53)*and while the designated sensor device is in the diagnostic mode of operation (*general purpose event indicates request to eject selected device, fig. 2, 210).*

Wynn et al. does not explicitly teach the method wherein concurrently executing said management and diagnostic functionalities includes a service processor coupled to the system component driver for enabling execution of system component driver commands to be performed remains operably accessible by a platform-side operating system while the system component driver is operating in the diagnostic mode of operation.

Schaefer teaches the direct processor access via an external multi-purpose interface by implementing a direct processor access via an external multi-purpose interface. The processor is coupled to the external multi-purpose interface by a bus. The external multi-purpose interface has a detection device that detects a diagnostic tool coupled to the interface. The interface is coupled directly to the processor in response to the diagnostic tool being coupled to the interface (*paragraph 0006.*

Refer to claim 1 for motivational statement.

In regard to claim 12, Wynn et al. teach the computer system of claim 11 wherein: said setting to the diagnostic mode of operation includes setting a device driver corresponding to the designated sensor device to the diagnostic mode of operation (*ACPI-aware chip set, node controller, fig. 1, 138, 192).*

In regard to claim 13, Wynn et al. teach the computer system of claim 11 wherein: said setting to the diagnostic mode of operation includes simultaneously setting a plurality of sensor devices to the diagnostic mode of operation (*general-purpose event can indicate requests to eject two or more selected devices, col. 8 lines 17-21)*; and the designated sensor device is one of said sensor devices (*selected devices, col. 8 lines 17-21).*

In regard to claim 14, Wynn et al. teach the computer system of claim 11 wherein executing said diagnostic functionality includes at least one of:

issuing a message indicating that the corresponding system component sensor device is inaccessible when accessed by a non-diagnostic user while the corresponding system component sensor device is in the diagnostic mode of operation (*the OS no longer uses the device because it "thinks" that the device is unavailable, col. 8 lines 1-8)*;

issuing a message to the non-diagnostic user indicating that the corresponding system component sensor device is transitioning to the diagnostic mode of operation from the system management mode of operation (*request to eject a device, fig. 2, 210, col. 7 lines 55-67 and col. 8 lines 1-8)*; and

issuing a message to the non-diagnostic user indicating that the corresponding system component sensor device is transitioning to the system management mode of operation from the diagnostic mode of operation (*insert or make device available to the OS, col. 8 lines 9-13).*

In regard to claim 15, Wynn et al. disclosed the computer system of claim 11 wherein: said setting to the diagnostic mode of operation includes disabling the designated sensor device from at least one of providing system management functionality and being accessed by non-diagnostic users (*making a device unavailable to the operating system while the operating system is running, col. 3 lines 40-53).*

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5. Claims 4-5 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn et al. (US 6,654,707) in further view of Schaefer (US 20010037418) in further view of Cote et al. (US 2003/0212524).

In regard to claim 4, Wynn et al. and Schaefer does not teach the computer system of claim 1, further comprising: at least one of a parent device driver interface and a child device drive interface.

Cote et al. teach the test access circuit and method of accessing embedded test controllers in integrated circuit modules wherein a parent TAC has Child TACs and test controllers conneted to its test ports (*fig. 2, 66, 72, 74).*

It would have been obvious to modify the circuit of Wynn et al. by adding Cote et al. test access circuit and method of accessing embedded test controllers in integrated circuit modules. A person of ordinary skill in the art at the time of applicant's invention would have been motivated to make the modification because it would improve the operations on test resources connected to a test access circuit connected at an arbitrary level of test access circuit hierarchy (*col. 1 lines 55-57 and col. 2 lines 43-54).*

In regard to claim 5, Wynn et al. and Schaefer does not teach the computer system of claim 1, further comprising: a parent driver device interface configured for controlling modes of operation of a group of child sensor devices; and a plurality of child device driver interfaces each configured for controlling modes of operation of a respective one of said child sensor devices,

wherein the corresponding system component sensor device is one of said sensor devices and is set to the diagnostic mode of operation using one of said device driver interfaces.

Cote et al. teach the test access circuit and method of accessing embedded test controllers in integrated circuit modules wherein each test access circuit can control any number of test access circuits and test controllers at a lower level of the test access circuit hierarchy *(fig. 2, col. 2 lines 60-65).*

Refer to claim 4 for motivational statement.

In regard to claim 16, Wynn et al. and Schaefer does not teach the computer system of claim 11 wherein: said data processing instructions comprises a device driver including at least one of a parent device driver interface and a child device drive interface; and said setting the designated sensor device of a system component to a diagnostic mode of operation is facilitated using at least one of the parent driver device interface and the child drive interface.

Cote et al. teach the test access circuit and method of accessing embedded test controllers in integrated circuit modules wherein a parent TAC has Child TACs and test controllers conneted to its test ports *(fig. 2, 66, 72, 74).* Furthermore,

Refer to claim 4 for motivational statement.

In regard to claim 17, Wynn et al. and Schaefer does not teach the computer system of claim 11 wherein: said data processing program comprises a parent driver device interface configured for controlling modes of operation of a group of child sensor devices and child device driver interface configured for controlling a respective mode of operation of a respective one of

said child sensor devices; and said setting the designated sensor device of a system component to a diagnostic mode of operation is facilitated using at least one of the parent driver device interface and the child drive interface.

Cote et al. teach the test access circuit and method of accessing embedded test controllers in integrated circuit modules wherein each test access circuit can control any number of test access circuits and test controllers at a lower level of the test access circuit hierarchy *(fig. 2, col. 2 lines 60-65).*

Refer to claim 4 for motivational statement.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LOAN TRUONG whose telephone number is (571) 272-2572. The examiner can normally be reached on M-F from 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SCOTT BADERMAN can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Loan Truong
Patent Examiner
Art Unit: 2114

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER